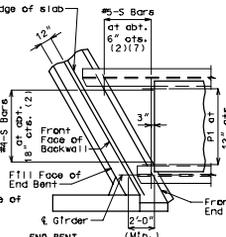
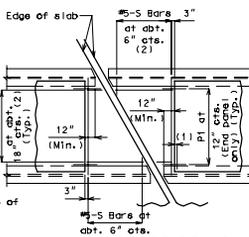


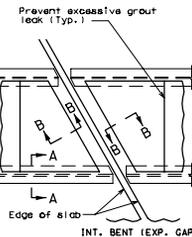
END BENT (INTEGRAL)



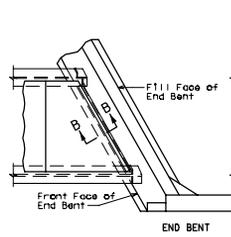
PANELS-SQUARED ENDS



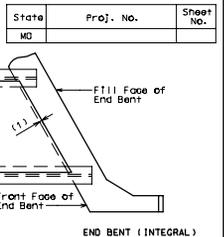
INT. BENT (EXP. GAP)



INT. BENT (EXP. GAP)

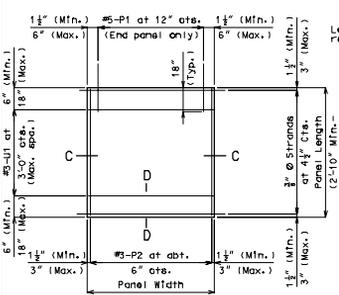


PANELS-SKEWED ENDS

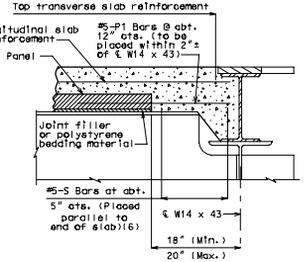


END BENT (INTEGRAL)

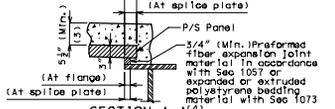
PLAN OF PRECAST PRESTRESSED PANELS PLACEMENT



PLAN OF PRECAST PRESTRESSED PANEL



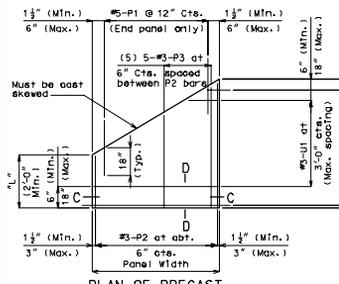
PART SECTION B-B



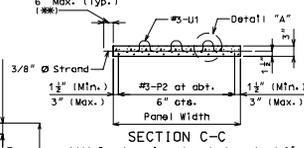
SECTION A-A-4

Notes: The thickness of the preformed fiber expansion joint material or polystyrene bedding material shall be adjusted to achieve the slab haunching dimension found on sheet 24. These adjustments shall be within the limits noted in the general notes.

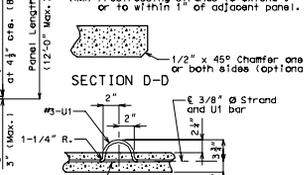
- NOTES:**
- #5 bars will be considered completely covered by the contract unit price for the slab.
  - S-bars are not listed in the Bill of Materials.
  - End panels shall be dimensioned 1/8" min. to 1-1/2" max. from the inside face of diaphragm.
  - #5 bars shown are bottom steel in slab between panels and used with squared and panels only.
  - Adjustment in the slab thickness, preformed fiber expansion joint material or polystyrene bedding material thickness, or grout will be necessary if the girder number other than girder #11 is used on more than the 2% of dead load deflection due to the weight structural steel. No payment will be made for additional labor or materials for the adjustment.
  - All panel support posts shall be glued to the girder. When support thickness exceeds 1-1/2 inches, the pads shall be glued top and bottom. The glue used shall be the type recommended by the panel support post manufacturer.
  - Use #3-P3 bars if panel is skewed 45° or greater.
  - #5 bars shown are used with skewed and panels, or square and panels of square structures only. The #5 bars shall extend the width of slab less 1/4" lap if necessary to meet minimum 3 inches of expansion device assemblies.
  - Extend #5 bars 18 inches beyond the front face of end bents only.
  - Any strand 2-0° or shorter shall have a #4 reinforcing bar on each side of 1" center between strands. Strands 2-0° or shorter may then be abandoned at the fabricator's option.



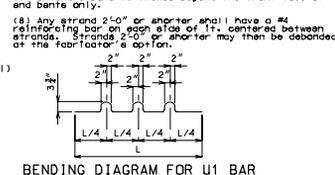
PLAN OF PRECAST PRESTRESSED PANEL (SKEWED END-OPTIONAL)



SECTION C-C



DETAIL "A"



BENDING DIAGRAM FOR U1 BAR

DETAILS OF PRECAST PRESTRESSED PANELS

**GENERAL NOTES:**

**PRESTRESSED PANELS:**  
Concrete for prestressed panels shall be Class A-1 with  $f'c = 6,000$  psi,  $f'at = 3,500$  psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength uncoated seven-wire, low-relaxation strands for prestressed concrete in accordance with ASTM A 203 (Grade 270) with nominal diameter of strand = 3/8" and nominal area = 0.085 sq. in. and minimum ultimate strength = 22.95 kips (270 kN). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When square end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Minimum preformed fiber expansion joint material or polystyrene bedding material thickness shall be 3/4" min., except over splice plates where minimum thickness shall be 1/4" min. when the material is used over 1/2" min. thick over a splice plate. The width of material of the splice shall be the same width as panels on splices. Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances. No more than 2" total thickness material to be used.

The same thickness of material shall be used under any one edge of any panel except at splices, and the maximum change in thickness between adjacent panels shall be 1/4" max. to correct for variations from girder center diagram. The polystyrene bedding material may be cut out to match haunch height above top of girder.

Support from alignment forms is required under the optional skewed and until cast-in-place concrete has reached 3,000 psi compressive strength.

**REINFORCING STEEL:**  
All dimensions are out to out.  
Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.  
Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrups and Tie Details.  
Actual lengths are measured along centerline of bar to the nearest 1/8".  
The prestressed panel quantities are not included in the table of estimated quantities for the slab.  
If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.  
Welded wire fabric or welded deformed bar mats providing a minimum area of reinforcing perpendicular to strands of 0.22 sq. in./ft. with 2" spacing shall be provided to strands sufficient to insure proper handling, may be used in lieu of the #3-P2 bars shown, with or without diameter, shall not be larger than 1/4" diameter.  
The above alternative reinforcement criteria may be used in lieu of the #3-P2 bars when maximum slab thickness is placed over a bent less than 2 feet.  
The reinforcing steel shall be tied securely to the 3/8" @ 3" strands in the top of the panels.  
Welded wire fabric or welded deformed bar mats at 2'-0".  
Tie the #3-U1 bars to the #3-P2 bars, to the welded wire fabric or the welded deformed bar mats at 3'-0" centers.  
All reinforcement other than prestressing strands shall be epoxy coated.  
Precast panels may be in contact with stirrup reinforcing in diaphragms.